

FACILITIES INVENTORY

Existing and future (2000 and 2020) wastewater treatment/reclamation facilities and associated infrastructure within the study area were inventoried. The purpose of the inventory includes:

- Identify existing treatment and infrastructure
- Identify reclaimed water transmission infrastructure
- Determine current wastewater flows
- Determine existing reuse and disposal mechanisms and how much reclaimed water/effluent is distributed to each

The basis for the inventory came from local governments, utilities, the Water Supply Plan and the RIDS Master Plan.

Flows were generated from Monthly Operating Reports (MORs) submitted for each facility to FDEP in accordance with their permits and from monitoring data provided by the facilities.

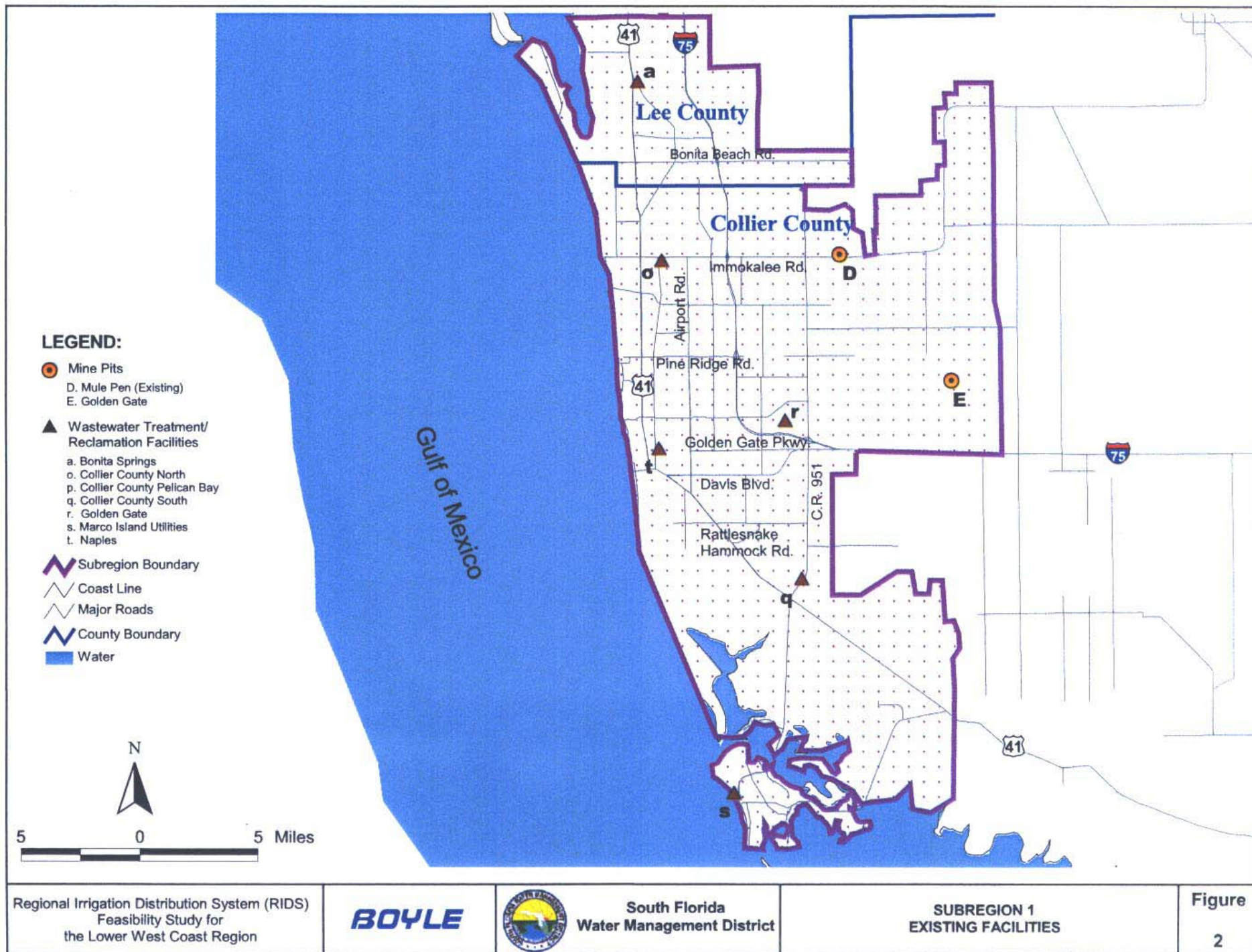
Wastewater Treatment/Reclamation Facilities

There are 6 wastewater treatment plants/reclamation facilities of significance in the study area. The facility locations are shown in Figure 2 for the study area. Table 2 summarizes the facility information.

The reclaimed water/effluent from the wastewater treatment/reclamation facilities is reused for urban irrigation, commercial uses, and groundwater recharge via percolation ponds, or disposed of via injection wells or discharged to surface water. Table 3 presents the reuse and disposal information from the facilities. Also, Table 4 displays the existing reclaimed water users for the study area.

Table 2
Wastewater Treatment/Reclamation Facility Summary

Facility Name	Stakeholder	Service Area Acreage	Permitted Capacity (MGD)	Annual Average Daily Flow (MGD)	Maximum Monthly Flow (MGD)	Minimum Monthly Flow (MGD)
Collier County North/Pelican Bay	Collier County Utilities	54,374	9.5	8.6	9.6	7.4
Collier County South	Collier County Utilities	78,290	8.0	6.4	8.4	5.8
Golden Gate	Florida Governmental Utility Authority	2,750	1.0	0.9	1.5	0.8
Marco Island	Florida Water Services	7,368	3.5	2.7	3.4	1.9
Naples	City of Naples Utilities	12,055	10.0	6.8	7.8	5.6
Bonita Springs	Bonita Springs Utilities	36,568	4.3	2.6	3.2	2.1
Total		191,405	36.3	28.0	33.9	23.6



**Table 3
Reuse and Disposal Summary**

Facility Name	Disposal Method	Annual Average Daily Flow (MGD)	Maximum Monthly Flow (MGD)	Minimum Monthly Flow (MGD)
Sub-Region 1				
Collier Co. North/Pelican Bay	Reuse	6.6	8.6	4.1
	Surface Water	0.3	1.6	-
	Deep Well Injection	0.3	1.7	-
Collier Co. South	Reuse	3.0	5.0	1.0
	Surface Water	2.3	5.9	0.6
	Deep Well Injection	0.4	2.2	0.0
Golden Gate	Reuse	0.9	1.5	0.8
	Surface Water	-	-	-
	Deep Well Injection	-	-	-
Marco Island Utilities	Reuse	1.2	1.8	0.3
	Percolation Ponds	-	-	-
	Deep Well Injection	0.8	1.8	0.0
Naples	Reuse	3.8	5.1	2.2
	Surface Water	3.0	4.6	1.5
	Deep Well Injection	-	-	-
Bonita Springs	Reuse	2.0	2.3	1.5
	Wet Weather	0.3	0.8	-
	Deep Well Injection	-	-	-
Total Disposal				
	Reuse	17.5	24.3	9.9
	Surface Water	5.6	12.1	2.1
	Deep Well Injection	1.5	5.7	0.0

Table 4
Existing Reclaimed Water Users

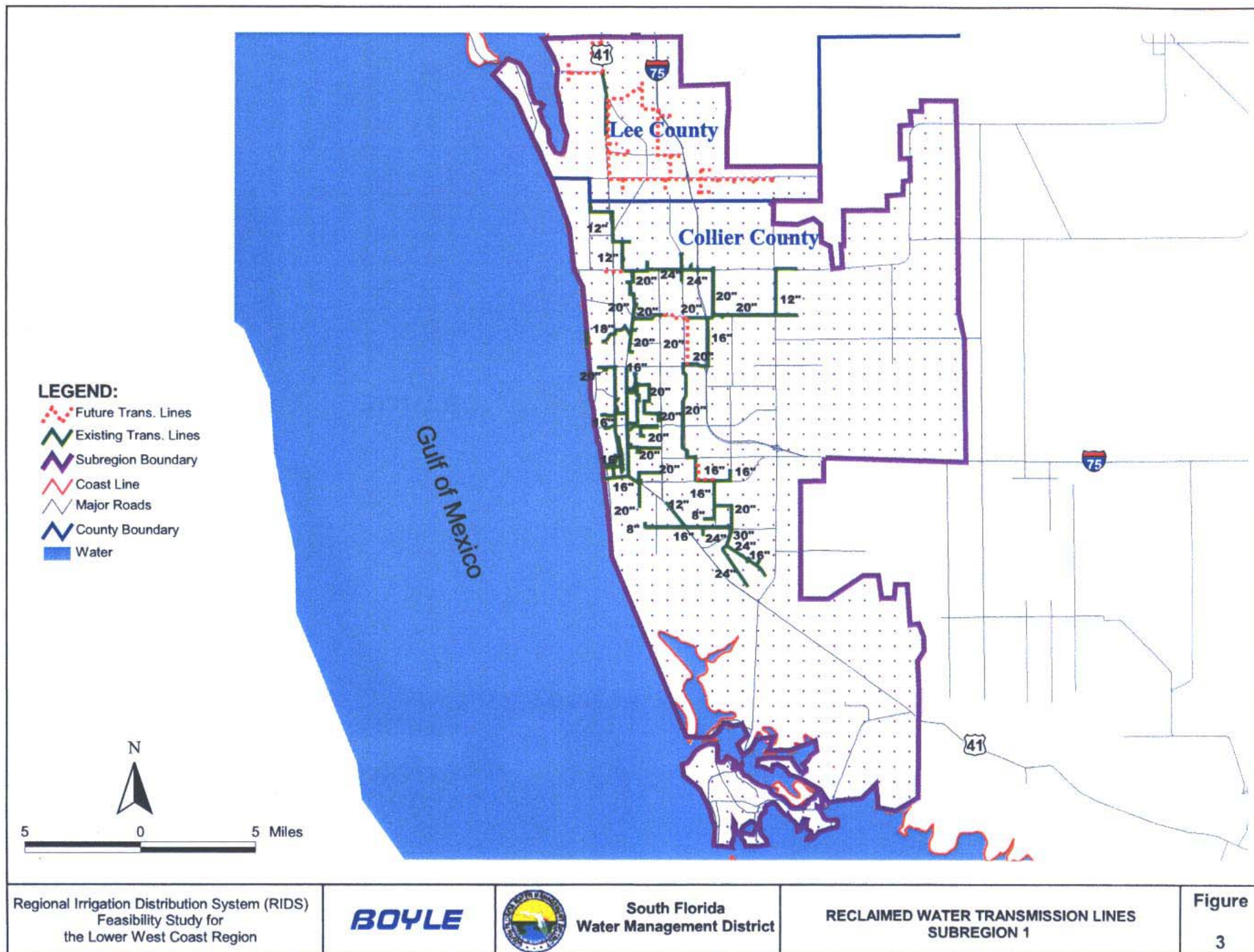
	Existing User	Reuse Demand (MGD)
Sub-Region 1		
Collier Co. North/Pelican Bay		
	Aston	0.05
	Audubon	0.80
	Autumn Woods	0.20
	Bermuda Green	0.02
	Calusa Bay	0.10
	Charleston Sq.	0.02
	Beachwalk Residents Assoc.	0.11
	Collier's Reserve	0.40
	Imperial	0.70
	Palm River	0.70
	Pelican Bay	4.09
	Pelican Marsh	2.60
	St. Croix	0.10
	Tract 21	0.80
	Veteran's Park	0.04
	Vineyards Utility	3.00
	Subtotal	13.7
Collier Co. South		
	Countryside/PCP Venture	0.55
	Foxfire Community Assoc. of Collier Co., Inc.	0.97
	Glades Country Club Apts.	1.90
	Hibiscus Golf Club	0.50
	Lakewood Community Services Assoc., Inc.	1.00
	Lakewood Country Club of Naples, Inc.	0.41
	Lely Development District & GC	2.20
	Riviera Golf Club of Naples, Ltd.	0.66
	Royal Palm Country Club	1.00
	Windstar	0.42
	Subtotal	9.6
Golden Gate	NI	
Marco Island Utilities	NI	
Naples	Small and Bulk Users	3.8
Bonita Springs		
	Brooks of Bonita Springs	2.24

	Existing User	Reuse Demand (MGD)
	Sweetwater Ranch	0.08
	Fountain Lakes	0.52
	Marsh Landing	0.02
	Woodside Lakes	0.08
	Allendale	0.04
	Eldorado Acres	0.03
	Gulf Atlantic	0.96
	Pelican Landing	2.41
	Bonita Bay	2.69
	Cedar Creek	0.73
	Highland Woods	0.79
	Bonita Fairways	0.75
	Vanderbilt Lakes	0.16
	Woods Edge	0.17
	Spanish Wells	1.22
	Imperial Harbor	0.07
	Bonita Golf Estates	1.34
	Woodbridge Wells	0.04
	Southern Pines	0.04
	Boltt Bonita Excavation	0.04
	Citrus Park	0.23
	Bonita Farms	0.00
	Spruce Run	0.22
	Hunters Ridge	0.81
	Worthington	1.01
	Quail West	0.57
	The Parklands	0.15
	Corkscrew Growers	0.00
	Subtotal	17.4
Total Existing Reuse Demand =		44.6

*NI denotes no information

Reclaimed Water Transmission Facilities

Existing reclaimed water transmission facilities were identified. Primarily, the focus was on larger pipelines; therefore, distribution systems and smaller lines may not be shown on the maps. Figure 3 presents the existing reclaimed water transmission facilities for the study area.



Existing Potable Water Supply Facilities

The locations of existing potable water infrastructure including treatment plants, wellfields, surface water intakes and potable water ASR wells were determined. Figure 4 presents the existing potable water infrastructure facilities for the study area.

Three reverse osmosis (RO) wellfields were inventoried in the area. Collier County North Water Treatment Plant RO system located in North Collier County consists of 14 existing production wells completed in the Lower Hawthorn Aquifer (LHA)/Upper Floridan Aquifer (UFA) and two permitted proposed wells. Collier County South Water Treatment Plant RO system is predominantly a Mid-Hawthorn Aquifer (MHA) system, but there are four permitted proposed MHA/LHA wells, some of which are under construction at this time. Bonita Springs' RO wellfield consists of eight wells, two of which have been installed.

Existing ASR Systems

Three existing UFA ASR systems were inventoried in the area. Florida Water Services' Marco Lakes surface water ASR system, located in south Collier County, uses three existing ASR wells and has six additional permitted ASR wells. Existing wells are completed in the LHA, with the ASR storage interval between 740 and 790 feet below land surface (BLS). In this system, filtered and disinfected surface water is injected. Recovered water is returned to the surface water reservoir, where it is fully treated along with other plant flows.

Collier County Utilities' Manatee Road potable water ASR system is located in south Collier County, two miles south of the Marco Lakes ASR system. It consists of one ASR well completed in the LHA (650-750 feet BLS).

Bonita Springs Utilities San Carlos Estates potable water ASR system is located in south Lee County. Testing of this system was aborted and the well has been converted to an RO supply well. The well is completed in the LHA (659-721 feet BLS).

LEGEND:

-  Coast Line
-  Major Roads
-  County Boundary
-  Water
-  ASR Wells
-  Water Treatment Plants
-  Wellfields

Water Treatment Plants:

1. Bonita Springs
2. Naples
3. Collier County North
4. Golden Gate
5. Collier County South
6. Marco Shores
7. Marco Island LSP
8. Marco Island ROP

Wellfields:

- A. Naples Coastal Ridge
- B. Collier East Golden Gate
- C. Collier County North RO
- D. Immokalee
- E. Bonita Springs West Wellfield
- F. Bonita Springs East Wellfield

